

# Contents

<i>Foreword</i> .....	vii
<i>Acknowledgments</i> .....	ix
<i>Introduction</i> .....	xi

## Chapter 1

<b>Cloudy with a Chance of Fish: ArcGIS for Server and Cloud-Based Fisheries Oceanography Applications</b> .....	1
<i>Tiffany C. Vance, Stephen Sontag, and Kyle Wilcox</i>	

## Chapter 2

<b>What GIS Experts and Policy Professionals Need to Know about Using Marxan in Multiobjective Planning Processes</b> .....	27
<i>Heather M. Coleman and Jeff A. Ardron</i>	

## Chapter 3

<b>Artificial Reefs, Beach Restoration, and Sea Turtle Nesting in Martin County, Florida</b> .....	49
<i>Alexandra Carvalho, Kathy Fitzpatrick, Jessica Garland, and Frank Veldhuis</i>	

## Chapter 4

<b>Tools for Implementing the Coastal and Marine Ecological Classification Standard</b> .....	73
<i>Lori Scott, Kathleen L. Goodin, and Mark K. Finkbeiner</i>	

## Chapter 5

<b>How Does Climate Change Affect Our Oceans?</b> .....	91
<i>Peter Kouwenhoven, Yinpeng Li, and Peter Urich</i>	

## Chapter 6

<b>A GIS Tool to Compute a Pollutant Exposure Index for the Southern California Bight</b> .....	109
<i>Rebecca A. Schaffner, Steven J. Steinberg, and Kenneth C. Schiff</i>	

## Chapter 7

<b>Development of a Map Viewer for Archipelago de Cabrera National Park, Balearic Islands, Spain</b> .....	135
<i>Beatriz Ramos López, Nuria Hermida Jiménez, and Olvido Tello Antón</i>	

## Chapter 8

<b>Whale mAPP: Engaging Citizen Scientists to Contribute and Map Marine Mammal Sightings</b>	<b>151</b>
<i>Lei Lani Stelle and Melodi King</i>	

## Chapter 9

<b>Extending Esri Geoportal Server to Meet the Needs of the West Coast Ocean Data Network and Inform Regional Ocean Management</b>	<b>171</b>
<i>Todd Hallenbeck, Tim Welch, Steven J. Steinberg, and Andy Lanier</i>	

## Chapter 10

<b>Linking Landscape Condition Impacts to Coral Reef Ecosystem Composition for the East End of Saint Croix</b>	<b>185</b>
<i>Daniel S. Dorfman, Simon J. Pittman, Sarah D. Hile, Christopher F. G. Jeffrey, Alicia Clarke, and Chris Caldow</i>	

## Chapter 11

<b>Using GIS Tools to Develop a Collaborative Essential Fish Habitat Proposal</b>	<b>203</b>
<i>Sophie de Beukelaer, Karen F. Grimmer, Jennifer A. Brown, and Chad King</i>	

## Chapter 12

<b>More Than Maps: Connecting Aquarium Guests to Global Stories</b>	<b>223</b>
<i>Jennifer Lentz, Emily Yam, Alie LeBeau, and David Bader</i>	

## Chapter 13

<b>Uncovering the Oceans through Marinescape Geovisualization</b>	<b>245</b>
<i>Rosaline Canessa, Robert Newell, and Cathryn R. Brandon</i>	

## Chapter 14

<b>Approaches to Visualizing Complex Ocean Data Using Worldwide Telescope</b>	<b>269</b>
<i>Rob Fatland</i>	

## Chapter 15

<b>Managing the Visual Landscape of Oregon's Territorial Sea</b>	<b>287</b>
<i>Paul Manson and Andy Lanier</i>	

## Chapter 16

<b>Near Real-Time Oceanic Glider Mission Viewers</b>	<b>315</b>
<i>Shinichi Kobara, Christina Simoniello, Ruth Mullins-Perry, Ann Elizabeth Jochens, Matthew K. Howard, Stephanie M. Watson, and Stephan Howden</i>	

<b>Contributors</b>	<b>337</b>
<b>Index</b>	<b>355</b>